

(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **08141797 A**(43) Date of publication of application: **04.06.96**

(51) Int. Cl.

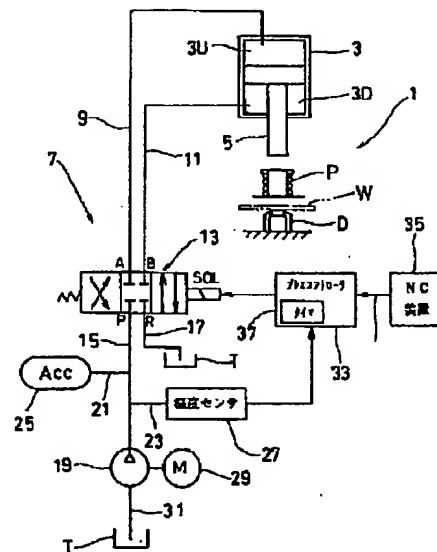
**B30B 15/16****F15B 21/04**(21) Application number: **06283714**(71) Applicant: **AMADA CO LTD**(22) Date of filing: **17.11.94**(72) Inventor: **SHIBUYA YOSHINORI**(54) **HYDRAULIC PRESS**

COPYRIGHT: (C)1996,JPO

(57) Abstract:

**PURPOSE:** To provide a hydraulic press which controls press timing in accordance with change in oil quantity caused by oil temperature and by which avoids sudden stop to enable continuous press working.

**CONSTITUTION:** The hydraulic press 1 is such that press working is performed on a work W by cooperating with a punch P and a die D through the operation of a hydraulic cylinder 3 and that the hydraulic circuit of the hydraulic cylinder 3 is provided with a selector 13 which is equipped with a solenoid SOL for reciprocating a piston rod 5 attached to the hydraulic cylinder 3. An accumulator 25 and a temperature sensor 27 are each provided in the middle of the piping 15 to which the selector 13 and a tank T are connected; and a press controller 33 is provided which is equipped with a timer 37 for turning on and off the solenoid SOL of the selector 13 after an oil temperature in the piping is detected by the temperature sensor 27 and also after the elapse of a prescribed time based on this detected oil temperature.



(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **06205779 A**(43) Date of publication of application: **26.07.94**

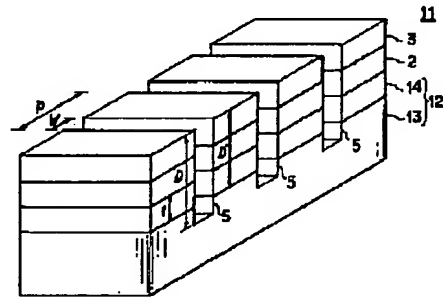
(51) Int. Cl. **A61B 8/14**  
**G01N 29/24**  
**H04R 17/00**  
**H04R 17/00**

(21) Application number: **05002720**(71) Applicant: **TOSHIBA CORP**(22) Date of filing: **11.01.93**(72) Inventor: **TEZUKA SATOSHI****(54) ULTRASONIC PROBE****(57) Abstract:**

**PURPOSE:** To provide an ultrasonic probe capable of forming an array at a finer pitch by securing the precision of the depth from the upper face of a matching layer to the upper face of a packing layer, improving the throughput of groove machining, and preventing the array pitch from being changed by the groove machining.

**CONSTITUTION:** A matching layer 3 and a packing layer 12 are connected respectively to both faces of a piezoelectric element 2 capable of transmitting and receiving ultrasonic waves into a layer structure, and prescribed grooves 5 are formed on the layer structure to obtain an array structure. A base layer 13 is made of a material having the deformation quantity of the prescribed value or below against mechanical stress and thermal stress, and a thin film layer 14 having the prescribed thickness is connected to the base layer 13 to form the backing layer 12.

COPYRIGHT: (C)1994,JPO&amp;Japio



(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **04162950 A**(43) Date of publication of application: **08.06.92**

(51) Int. Cl.

**B22D 17/20**  
**C23C 8/24**(21) Application number: **02289872**(71) Applicant: **GOTO TAMIHEI**(22) Date of filing: **27.10.90**(72) Inventor: **GOTO TAMIHEI**(54) **PARTS RELATED TO INJECTION FOR DIE CASTING MACHINE**

effect is obt'd.

COPYRIGHT: (C)1992,JPO&amp;Japio

(57) Abstract:

**PURPOSE:** To improve the durability of parts related to injection for die casting machine by machining part or a part in contact with molten metal made of titanium alloy after forging or pressurized-extrusion forming and executing quenching or surface treatment.

**CONSTITUTION:** The sleeve 9 for injection in cold chamber type die casting machine, is manufactured by finishing with race-machining after heating a round bar of the titanium alloy composed of the titanium as the main component and aluminum, vanadium, molybdenum and iron at 850-900°C and executing pressing with a hydraulic press to form this into cylindrical shape. Successively, the sleeve is heated at 850°C and after quenching with water cooling, the developed heat strain is finished into the normal size with precise machining. Thereafter that, aging treatment, i.e., this is heated at 510°C for 1hr and at 400°C for 2 hr and after cooling, grinding to inside and outside diameters are executed with honing to obtain the sleeve 9 having excellent shock resistance, heat resistance and erosion resistance. Further, as for a plunger 11, too, the same

